# **Construction Industry Council**

# **Committee on Building Information Modelling**

Meeting No. 002/20 of the Committee on Building Information Modelling (Com-BIM) was held on Friday, 3 April 2020 at 2:30pm at the Board Room, 29/F, Tower 2, Enterprise Square Five (MegaBox), 38 Wang Chiu Road, Kowloon Bay, Kowloon, Hong Kong and through web meeting.

Present	Ada FUNG Yin-suen Neo CHAN Kang-yuen* Thomas CHAN Tak- yeung*	(AF) (NCKy) (CTY)	Chairperson
	Jack CHENG Chin-pang* Daniel CHONG Kwok- ming*	(JCCp) (DCg)	
	Clement CHUNG* CHUNG Kwok-fai* Ivan FU Chin-shing*	(CtCg) (CKFi) (FI)	
	Eric POON Shun-wing*	(EPSW)	
	TAM Wing-cheung*	(WCT)	
	Billy WONG Chi-pan*	(BWCb)	
	Kelvin WONG Ka-wo*	(KWKw)	
In Attendance	Rocky POON Lock-kee*	(LKP)	Co-chairperson of Task Force on BIM Specifications and Agreement
	Eric CHAN*	(ECHL)	Development Bureau
	Vincent CHOW*	(HKC)	Development Bureau
	Kennis WAN*	(KWn)	Development Bureau
	Albert CHENG*	(CTN)	Executive Director
	Richard PANG*	(RPg)	Director - Industry Development
	Alex HO	(AHKK)	Senior Manager – Building Information Modelling
	Serina LAU	(SLau)	Manager - Building Information Modelling
	Ron NG*	(RNCw)	Manager - Building Information Modelling
	George WONG*	(GWCk)	Manager - Building Information Modelling

# CIC/BIM/M/002/20 (for information)

Terence WONG\*

TeWg

Lecturer- Building Information Modelling, Centre for Professional Development

Remarks: \*attend the meeting through Microsoft Teams

#### **MINUTES**

**Action** 

Before the meeting, AF reminded Members to declare conflict of interest if any.

#### 2.1 Introduction of Committee on BIM and its Task Forces

AF briefed Members on the paper CIC/BIM/P/004/20 and gave a presentation on the introduction of Committee on BIM (Com-BIM) and its Task Forces.

AF welcomed the Members of the new term of Com-BIM. There are twelve Members (including AF) in total. The appointment period is from 1 February 2020 to 31 January 2022. There are three Task Forces under Com-BIM including Task Force on BIM Standards (Phase 2), Task Force on BIM Training, and Task Force on BIM Specifications and Agreement (a joint Task Force co-chaired with Committee on Procurement). The composition and Terms of Reference of Com-BIM and its Task Forces were attached in Annex A for Members' information.

# 2.2 Confirmation of the Minutes of Meeting No. 001/20 of the Com-BIM

Members took note of the Paper CIC/BIM/M/001/20 and confirmed the Minutes of meeting No. 001/20 of the Com-BIM held on Tuesday, 7 January 2020.

# 2.3 Matters Arising from the Previous Meeting

AHKK reported on the matters arising from the previous meeting as follows:

(a) <u>Item 1.2 – Matters Arising from the Previous Meeting</u>
To follow up with the institutions who had signed the Memorandum

of Understanding (MOU institutions) with the CIC to collect their BIM-related research projects for sharing on the BIM Portal, CIC has collected information from three universities and the Technological and Higher Education Institute of Hong Kong, and uploaded it onto the BIM Portal on 24 January 2020. AHKK encouraged the Hong Kong University of Science and Technology (HKUST) to pass the information to CIC for sharing.

JCCp

# (b) <u>Item 1.5 - Progress Report on the BIM Certification and Accreditation</u> Scheme

The statistics on CIC-Certified BIM Managers (CCBMs) would be reported under Agenda item 2.7.

## (c) Item 1.6 - Progress Report on BIM by CIC

Due to the outbreak of COVID-19, BIM Night had been postponed until the situation permits. Many seminars would be conducted via webinars. To enhance the publicity of BIM Night in providing a casual platform to BIM practitioners for networking and knowledge sharing, CIC would invite key industry practitioners to share knowledge on selected topics for BIM Night and promote the events through the CIC BIM Portal, CCBMs and e-invitation to industry stakeholders.

To capture the essence of the International Conference on BIM held in December 2019 and to upload all relevant information to the BIM Portal, the presentation files of the International Conference on BIM had been made available on the Construction Innovation Expo (CIExpo) website. Members could also find them under the BIM Portal.

https://www.bim.cic.hk/en/highlights/detail/52

#### 2.4 Progress of the Task Force on BIM Standards (Phase 2)

JCCp briefed Members on the paper CIC/BIM/P/005/20 and gave a presentation on the progress of the Task Force on BIM Standards (TF-BS) (Phase 2).

Buildings Department (BD) was carrying out its internal consultation on the "CIC BIM Standards for Preparation of Statutory Plan Submissions" and associated deliverables. If any further comments were received on the CIC BIM Standards, the Consultant would update the deliverables accordingly within the contract period. BD would consider turning the deliverables into BD's Guidelines for the industry to adopt. The Assignment Brief of the "Enhancement of CIC BIM Standards (General)" was agreed by Task Force in late February 2020. The tender was issued on 17 March 2020 and the tender interview would be held on 14 April 2020. The project would commence in early May 2020 and last for 6 months.

For the "CIC BIM Guide of Digital Mechanical, Electrical and Plumbing (MEP) drawings for Statutory Plan Submissions", the consultancy service was targeted to be awarded in June 2020 and the project duration would be 8 months.

After the presentation, AF suggested the Task Force to keep Mr. Marcin KLOCEK, the Chairperson of the Task Group 1 on BIM Specifications updated on the development of "Enhancement of CIC BIM Standards (General)" as it would incorporate good practice of ISO19650.

**JCCp** 

DCg expressed difficulties in selecting MEP software for MEP contractors to use. AHKK suggested to invite those who had applied Construction Innovation and Technology Fund (CITF) for MEP software to introduce the functions of their software. JCCp agreed and suggested CIC to organise a BIM Solution Day while AF suggested to organise a webinar for MEP contractors. CIC Secretariat would follow up.

CIC Secretariat

Members were encouraged to specify the use of CIC BIM Standards as All to note requirements in their contracts.

Members took note of the progress of the TF-BS (Phase 2).

#### 2.5 **Progress of the Task Force on BIM Training**

CtCg briefed Members on the paper CIC/BIM/P/006/20 regarding the progress of the Task Force on BIM Training (TF-BT).

CIC would conduct an annual survey of BIM education in the MOU institutions in April 2020. A seminar would be delivered for students of the Civil Engineering Department at the HKUST in May 2020 to raise their awareness on digital transformation and arouse their interest in innovative construction.

Task Force Members had revised the focus of the tasks in 2020. They would continue to organise pilot courses on BIM uses, provide Train-the-Trainer courses with more local context and teaching skills, and encourage professional bodies to include BIM training in their accreditation requirements for university courses and hold regular roundtable meetings with MOU institutions for experience sharing.

Task Force Members had given feedback on course outlines of "Building Information Modelling – Drawing Generation – Revit" to the School of Professional Development in Construction (SPDC) of the Hong Kong Institute of Construction (HKIC).

After deliberations, AF suggested to encourage MOU institutions to include BIM as part of their courses or better still, integrate BIM into student projects or normal curriculum with BIM already embedded. CtCg agreed and would explore the feasibility.

CtCg

Members took note of the progress of the TF-BT.

# 2.6 Progress of the Task Force on BIM Specifications and Agreement

AF briefed Members on the paper CIC/BIM/P/007/20 regarding the progress of the Task Force on BIM Specifications and Agreement (TF-BSA).

A briefing session on the BIM Contract Conditions by the Hong Kong Institute of Surveyors (HKIS) was held on 3 January 2020.

Comments on the framework of the BIM specifications were agreed by Task Group 1 on 6 March 2020. AF reminded that the TF-BSA and Task Groups should work together.

Task Group 2 on Special Conditions of Contract for BIM would further meet with HKIS to discuss the development of Special Conditions of Contract for BIM in April 2020.

A questionnaire survey on BIM services agreement was being conducted in early March 2020 to collect the needs of industry stakeholders. Task Group 3 on BIM Services Agreement would proceed with the drafting of BIM Services Agreement with reference to the survey results.

Members took note of the progress of the TF-BSA.

## 2.7 Progress Report on the BIM Certification and Accreditation Scheme

GWCk gave a presentation on the progress report on the BIM Certification and Accreditation Scheme (BIMCAS).

870 applications were received, and there were 243 approved CCBMs as of 13 March 2020. Passing rate was about 75%. The number of approved CCBMs for each organisation type was analysed and presented to members. Due to the outbreak of COVID-19, stringent risk control measures had been put in place. Although CIC had resumed conducting assessment interviews, it might take a longer time to process the applications, and a notification on this had been posted on the BIM Portal.

The Schemes on Certification of BIM Coordinators and Accreditation of BIM Coordinator Courses were soft launched on 31 March 2020. A webinar for explaining the new Schemes would be held on 15 April 2020. Additional webinars on "BIM Certification and Accreditation Schemes – Latest Updates, Tips and FAQs" would be held on 13 May and 17 June 2020.

Members took note of the progress report of the BIMCAS.

# 2.8 Progress of Consultancy Services on the 3D and BIM Data Use Case Requirements of the Construction Industry for the Development of Digital Hong Kong to the HKSAR Government for Construction Industry Council

RNCw briefed Members on the paper CIC/BIM/P/008/20 regarding the progress of the consultancy services on the 3D and BIM data use case requirements of the construction industry for the development of Digital Hong Kong to the HKSAR Government for Construction Industry Council.

The objectives of the consultancy services were to accelerate the development of 3D Digital Hong Kong for the construction industry and to tie in with the Smart City initiative by collecting the 3D Spatial and BIM data use case requirements from the local construction industry. The tender was awarded to AECOM Asia Company Limited on 8 January 2020.

Mr. Cliff CHOW, a representative from AECOM Asia Company Limited, gave a presentation on the scope, approach and progress of the consultancy services. Members were encouraged to complete the

All to note

questionnaire on time and participate in the interviews.

After presentation, AF suggested to conduct a mini webinar with similar use case requirements by groups to maximize the coverage of industry stakeholders. KWKw reminded the consultant to take note of the data privacy, and data exchange liability of data providers and data requesters. FI welcomed the consultant to interview members of the Committee on Environment to collect the use case requirements on carbon emission.

CIC Secretariat

Members took note of the progress of the consultancy services.

# 2.9 Progress Report on BIM by CIC

AHKK gave a brief presentation on the progress report on BIM prepared by CIC from January to March 2020.

- (a) Key tasks related to BIM in the 2020 Major Work Plans include overseeing BIM research projects, publishing BIM objects, developing reference BIM Specifications, Agreement and Standards, establishing Certification and Accreditation Schemes for BIM Coordinators and Coordinator Courses, and organising BIM Awards and Competition.
- (b) Due to the outbreak of COVID-19, TeWg mentioned that BIM training courses with hands-on experience were suspended.
- (c) Due to the outbreak of COVID-19, the CIC BIM Space was closed from 3 February to 1 March 2020, then closed again from 22 March 2020. Over 400 visitors attended the activities at CIC BIM Space from January to March 2020.
- (d) BIM webinars would be held from April to June 2020, including BIM Talks, BIM Solution Day, BIM Advanced Workshop, BIM Competition Training Workshop, and consultation with industry stakeholders on CIC's work and publications. Members were encouraged to promote BIM webinars to their organisations/institutions.

All to note

(e) A total of 43 teams had registered to enter the CIC BIM Competition 2020 (Tertiary Student Category) after the registration deadline on 1 March 2020. Nine sessions of hands-on BIM software training through webinars were conducted in March 2020 and attracted over 320 participants in total.

(f) BIM Awards was proposed to be renamed as a high level "Digitalisation Award" and be postponed to 2021. AF suggested to organise BIM Awards to recognise those who had made contribution to the development of BIM this year, which would not be dissimilar to those awards given out in BIM Year 2014. CIC ought to have given awards in BIM Year 2019, but had been overwhelmed with CIExpo's activities, and we should therefore pick it up at 2020. RPg agreed that small scale BIM Awards could be given to keep the momentum in BIM promotion and adoption going in 2020, but these should not affect the Digitalisation Award (including BIM) in 2021.

CIC Secretariat

- (g) Around 1,000 BIM objects from Works Departments had been uploaded to the CIC BIM Portal as of 31 March 2020. CIC would keep collecting BIM objects from Works Departments through Development Bureau.
- (h) BIM Adoption Survey 2019 was completed and the public-facing report was published on the BIM Portal on 18 March 2020. The BIM Adoption Survey 2020 would focus on more detailed data analysis using the developed methodology.
- (i) Two BIM research projects, including "BIM-based Rebar Design Optimization and Prefabrication Automation" and "BIM-Automation of Gross Floor Area Calculation, Fire Safety and Prescribed Checking for General Building Plans Preparation" were in progress. Members were invited to support by taking part in the trials of the staged completed research products.

All to note

(j) Statistics of CITF on BIM experiential case and adoption was reported. Members were encouraged to promote CITF to eligible applicants as the approved cases in these categories was not high.

All to note

(k) CIC had invited about 90 representatives from relevant industry stakeholders to join the CIC-BIM Network by email on 10 March 2020. 42 replies were received as of 2 April 2020.

After presentation, DCg suggested CIC to encourage manufacturers to provide standardised BIM objects for use by industry stakeholders. AF suggested to organise a webinar to promote the publication of the "CIC Production of BIM Object Guide - General Requirements (August 2019)" and to encourage manufacturers to adopt it. CIC Secretariat would follow up.

CIC Secretariat

Members took note of the progress report on BIM prepared by CIC.

(*JCCp* left the meeting at 4:29pm) (*FI* left the meeting at 4:36pm)

[Post-Meeting Notes: small scale BIM Awards is renamed to the "Celebration of BIM Achievement 2020".]

#### 2.10 Tentative Meeting Schedule for Year 2020

AF briefed Members on the paper CIC/BIM/P/009/20 regarding the tentative meeting schedule for year 2020.

Members were invited to reserve the dates to attend the Com-BIM All to note meetings.

#### 2.11 Any Other Business

a) Difficulties in BIM adoption by MEP contractors from the Hong Kong Federation of Electrical and Mechanical Contractors (HKFEMC)

CIC Secretariat received a letter from DCg by email on 3 April 2020. It mentioned the difficulties in BIM adoption by MEP contractors from HKFEMC and their expectations. AF suggested CIC Secretariat to follow up with HKFEMC after the meeting, and work with the SPDC of the HKIC to explore online BIM training for their members.

CIC Secretariat

#### b) Construction Digitalisation

AHKK gave a brief presentation on the tentative plan for the CIC core initiative on Construction Digitalisation for Members' information/feedback.

#### 2.12 Date of Next Meeting

29 June 2020 (Monday) at 2:30 p.m. at the Board Room, 29/F, Tower 2, Enterprise Square Five (MegaBox), 38 Wang Chiu Road, Kowloon Bay, Kowloon, Hong Kong.

There being no further business, the meeting was adjourned at 4:54pm.

CIC Secretariat April 2020

#### Committee on BIM

#### **Terms of Reference**

- 1. To formulate strategies for market transformation, promote the use and facilitate the application of BIM, digital construction, and its related technologies in construction industry (hereinafter known as "BIM");
- 2. To promote cross-disciplinary collaboration and adoption of "BIM" in project delivery processes including planning and design, construction, facility and asset management;
- 3. To develop CIC as a Centre of Excellence for "BIM" in the form of a central hub and of the open sharing platform of "BIM" with specific focus on the following:
  - To develop standards, specifications and common practices for BIM;
  - To develop and promote good practices in both BIM management and BIM operation;
  - To build capacity, develop and operate BIM Development Ladder, BIM Training Ladder, BIM Professional Registration and Accreditation; and their relating training programs and implementation programs.
- 4. To identify areas which require further investigation, promote research & development for "BIM".

- 1. Ada FUNG Yin-suen (Chairperson)
- 2. Neo CHAN Kang-yuen
- 3. Thomas CHAN Tak-yeung
- 4. Jack CHENG Chin-pang
- 5. Daniel CHONG Kwok-ming
- 6. Clement CHUNG
- 7. CHUNG Kwok-fai
- 8. Ivan FU Chin-shing
- 9. Eric POON Shun-wing
- 10. Tommy TAM Wing-cheung
- 11. Billy WONG Chi-pan
- 12. Kelvin WONG Ka-wo

#### Task Force on BIM Standards (Phase 2)

#### **Terms of Reference**

- 1. To identify the types of standards, specifications, common practices, or reference documents which are essential or beneficial to facilitate the industry to better adopt the BIM in the aspect of project execution;
- 2. To prioritize those items identified in (1) above;
- 3. To commission consultancy services for Phase 2 as necessary to prepare for the information with higher priority identified in (2) above with a view to facilitating the development of BIM application in the local Architecture, Engineering & Construction (AEC) industry; and
- 4. To review and comment the deliverables of the consultancy projects, if any.

	Name	Representing Organisation
1.	Jack CHENG Chin-pang (Chairperson)	Hong Kong University of Science and
		Technology
2.	Ben CHAN Siu-bun	Lands Department
3.	Aaron CHAN Wing-kai	Hong Kong Institute of Architects
4.	Vincent CHOW Hau-keung	Development Bureau
5.	Clement CHUNG	Association of Consulting Engineers of Hong
		Kong
6.	David FUNG Shu-kin	Hong Kong Institute of Building Information
		Modelling
7.	Mark LAI Wing-hong	Buildings Department
8.	Kelvin WONG Ka-wo	Airport Authority Hong Kong

#### **Task Force on BIM Training**

#### **Terms of Reference**

- 1. To make recommendations to the Committee on Building Information Modelling (BIM) in relation to the development of the overall objectives, training contents, training methods, admission requirements, programme management, promotion and so on for different types of BIM courses offered by the CIC. Courses include full-time courses (such as Basic Craft Courses, Construction Supervisor / Technician Courses, Adult Short Courses, Enhanced Construction Manpower Training Scheme, Enhanced Construction Supervisor / Technician Training Scheme, Diploma / Certificate Courses) and day-time & part-time evening courses for industry practitioners (such as Basic and Advanced Modelling Courses, BIM Management Course); and
- 2. To review and examine the quality and quantity of the BIM courses and make recommendations to the Committee on BIM regarding the measures for enhancing the quality and quantity of the BIM courses and also reducing the waiting time for admission and so on.

	Name	Representing Organisation
1.	Clement CHUNG (Chairperson)	Association of Consulting Engineers of Hong Kong
2.	Jack CHENG Chin-pang	Hong Kong University of Science and Technology
3.	Sunny CHOI Shing-lam	Hong Kong Institute of Surveyors
4.	Rachel CHOW	Hong Kong Institute of Architects
5.	NG Chun-keung	Hong Kong Institute of Utility Specialists
6.	Billy WONG Chi-pan	Hong Kong Construction Association
7.	WONG Tsz-kin	Electrical and Mechanical Services Department

# Task Force on BIM Specifications and Agreement

#### **Terms of Reference**

- 1. To develop Standard BIM Clauses and Standard Particular Specification for incorporating into existing construction contracts for implementing BIM in construction projects;
- 2. To draft a set of CIC Standard Agreements for procuring BIM services under different contractual relationships;
- 3. To establish Task Groups and/or engage consultant(s) as necessary to undertake (1) and/or (2) and to oversee consultancy management and deliverables; and
- 4. The Task Force shall have a term of 18 calendar months starting from the date of the first Task Force meeting. The term may be extended subject to the status of the tasks in progress.

	Name	Representing Organisation/ Remarks
1.	Ada FUNG Yin-suen (Chairperson)	Chairperson of the Committee on BIM
2.	Rocky POON Lock-kee (Chairperson)	Chairperson of the Committee on
		Construction Procurement
3.	Douglas AU	Hong Kong Institute of Building
		Information Modelling
4.	Andrew CHAN Ching-leung	Hong Kong General Building Contractors
		Association
5.	Neo CHAN Kang-yuen	Hong Kong Institute of Building
		Information Modelling
6.	CHAN Kim-kwong	Hong Kong Construction Sub-contractors
		Association
7.	Edmund CHAN Sai-chun	Hong Kong Housing Authority
8.	Vincent CHEUNG Cho-lam	Hong Kong Institute of Planners
9.	Honson CHIU	Hong Kong Housing Authority
10.	Sunny CHOI Shing-lam	Hong Kong Institute of Surveyors
11.	Daniel CHONG Kwok-ming	Hong Kong Federation of Electrical and
		Mechanical Contractors
12.	Clement CHUNG	Association of Consulting Engineers of
		Hong Kong
13.	Calvin FU Po-wa	Hong Kong Institution of Engineers

# CIC/BIM/M/002/20 Annex A

	Name	Representing Organisation/ Remarks
14.	David FUNG Shue-kin	Hong Kong Institute of Architects
15.	Marcin KLOCEK	MTR Corporation
16.	Alvin LAI	Hospital Authority
17.	Dennis LEUNG	Hong Kong Housing Authority
18.	Linda LI Yan-yan	Hong Kong Institute of Architects
19.	SO Ching	Hong Kong Institute of Architects
20.	Billy WONG Chi-pan	Hong Kong Construction Association
21.	Eliza WONG	Member of the Committee on
		Construction Procurement
22.	Kelvin WONG Ka-wo	Airport Authority Hong Kong
23.	Kevin WONG	Hong Kong Institute of Building
		Information Modelling
24.	Timothy YAU	Hong Kong Institute of Building
		Information Modelling
25.	Keith YIM	Association of Consultant Quantity
		Surveyors
26.	YIP Yin-yung	Real Estate Developers Association of
		Hong Kong